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A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION, WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS CHEMICAL COMPOSITION, ANATOMICAL STRUCTURE, AND PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERIMENTAL RESEARCH ON THE LOWER ANIMAL.

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Continued from last number.

PART XIII.

ON THE CONTRACTILITY OF THE CAPILLARIES.

In the study of biology we learn that one of the fundamental characters of all living matter is its property of spontaneously changing form, of improvement, however limited in extent this may be. In the young plant or animal this is more pronounced than after degenerative changes begin; and, in speaking of the vascular system, Fabricius declared, that eliminating acquired disease, a man lived as long as his blood-vessels. In the senile state, or in localized degenerations, primary dissolution begins in the capillary areas of the vascular system; in different structures and in various stages of life. With many, these senile changes first seize on the scalp, destroying the hair follicles and the sebaceous crypts, while in others, the more vital centres within the skull are starved into premature decay and softening by those same atrophic changes as in

the vessels of the overlying scalp. The study of the vascular senility, as it applies to structures and the organs is one of most attractive interest to the student of pathology. But, where is the primary seat of those changes; in the larger vessels, the capillary or the blood itself? We will later return to this topic, and now bring to a close the consideration of the question of the contractility of the capillary.

It has been previously stated that under the influence of emotion, by a reflex action, through the vaso-motor nerves, the terminal capillaries suddenly empty themselves, and thus, deprived of their corpuscular elements, fade from sight, not even a trace of their outline being left. This phenomena would most certainly imply active contractility of their walls; for, after being emptied of their blood, a vacuum is formed and a general collapse succeeds. But do they in any degree contract on their contents after the manner of the arteries? No such proofs have appeared to me while the blood circulates through them, though that they may, in limited districts, take on spasmodic contraction, under pathologic conditions is indisputable.

Shortly after the forcible injection of a minute quantity of methylene-blue in a frog, I watched for evidence of its absorption and dissemination through capillaries of the webbing. After a while, minute globular specs of deep blue began to flit by, but this had not continued long, when suddenly, here and there, the longest capillary pores commenced to take on the most remarkable and rapid gyrations. The whole vessel would quickly shorten, elongate,

twist on itself, move in serpentine directions, rest and start, to again halt, until all movement would cease and the corpuscles, until now, notwithstanding this commotion, moved steadily on, gradually came to a rest; when, finally, as fresh files arrived, they were stopped or turned aside into other open vessels.

This display on the part of the capillaries demonstrated that under the influence of morbid conditions the capillary is capable of extensive and varied movements.

It will be observed, however, that although, those intestine-like motions were pronounced, still the bore of the vessels remained the same, without any evidence of its diminution or enlargement.

It is probable, that when the blood is finally discharged into the finer capillaries, all contractile impulse ceases, and now, the continuances of the circulation is maintained by other factors; by new forces evolved, of an intrinsic order.

Until Kolliker and others discovered the amoeboid and wandering character of the leucocyte, physiologists passed over this strange body as simply a "white blood corpuscle;" but later studies have proven that it possesses several marvelous functions; and, indeed, with our present knowledge, the question may be raised whether its presence in the blood in health is anything more than accidental. It seems quite capable of taking care of itself, independent of vascular motion, and may be seen leisurely leaving and returning through the walls of the capillary. Leucocytes have been said, by some authorities, to be quite identical with pus-corpuscles, although Heitzman, with several other eminent investigators, emphatically deny this; and any one who has made a study of hematology by modern methods can readily convince himself that this theory has little to support it. Diapedesis or transmigration of the white globules takes place in the finer capillaries of their own accord, and probably is in no manner influenced by motion, in the walls of those vessels. But red corpuscles and the immature, or the

hematoblasts, are also found in considerable numbers, in the thoracic ducts, before they empty their contents into subclavian veins.

Some have believed that this sanguinous admixture was accidental and was caused by an escape of the venous blood into the lymph-duct. But it has been formed in the finer off-shoots of the absorbents, into which it must have migrated directly from the capillaries.

We have then, as accessory to capillary propulsion, corpuscular movement, both in the vessels and outside of them.

In the skeletal vessels chemic action of the blood is restricted to comparatively simple changes; as is little more than the liberation of oxygen and the absorption of carbonic acid gas. But, in the glandular organs as the pulmonary, hepatic and renal, wherein depuration of the blood takes place and new elements are formed, the most complex chemic changes occur; ferments are elaborated, acids, gases and alkalies, not pre-existing in the blood, are generated, resorbed or eliminated. Attendant on these molecular changes is the creation of new forces. Chemic force, therefore, may be added to automatic corpuscular movement, as a factor, in the capillary circulation. Independent of, yet intimately associated with these, are what may be well designated vital action, that impalpable something of which we are cognizant, but all of us know nothing.

If it be allowed that even with the fresh light which science has shed on the study of the capillary-circulation, that the forces which maintain its motion are not, by any means, proven, we might direct attention of the critic to the very centre of circulation, and assure him that the same vital influence which provides the needed force there is extended to the capillaries; for there certainly is not any physical or anatomical explanation of that great and ceaseless force, which, during our existence, keeps the cardiac pump in incessant motion. It won't do to tell us that it is dependent on nerve influence alone, for the heart will continue to act after its nerve supply

is cut away, nor can it be said that its vitality is derived from its vascular supply, as the coronary arteries are totally inadequate to provide the necessary pabulum of this powerful engine. Besides, in many of the cold-blooded reptalia, the heart continues to beat hours after it is entirely removed from the body. And thus it is with the capillaries that the innate vital endowment which they possess not only enables them to carry on their functions, but likewise to resist in a marvelous degree the consequences of injury, disease or other destructive agencies. As, for example, when a part, as a limb, is frozen through and all the fluids congeal in one icy mass, by cautious measures animation and function return, the glimmering spark, though dormant, needs but the opportunity to rekindle life in those tissues on the verge of dissolution.

That the capillary is quite independent of central force for its circulation we may infer from analogy, or by comparison with organized vegetable bodies, which preserve an active circulation of the sap, entirely by forces generated in the processes of growth and development. The same may be said of many of the lowly organized beings of the animal world. Some have nothing more than a rudimentary capillary structure. In many fishes we find the blood of the veins and arteries freely mixing, being moved by a long diverticula, extending on either side of the spine. Differentiation of the vascular organization being only seen in the more highly organized animals.

Capillary Stasis.—It has been previously stated that we have reason to believe that the circulation is not equally energetic in all the capillaries at the same time, and that, under various circumstances and conditions, in limited areas at varying intervals it is quite motionless.

Now, when we in any manner, either through nervous impressions or mechanical pressure, embarrass the general or local circulation, for example, by the sudden application of cold, by pressure on the limb, or by fright, the corpuscles in the intermediate

capillaries entirely cease all movement for the time, though, while this stasis remains, when of but short duration, little or no change can be distinguished in the corpuscles, except an increase of migration of the leucocytes out into the peri-vascular and lymph spaces. After the causes which lead to the arrest of motion are overcome, one by one, the files of corpuscles begin to move, until, in a short space, but few remain motionless. But when pressure is continued beyond a certain limit then such an escape of the aqueous elements of the plasma follows as to blur the field so that motion can only be discovered in the larger arterioles, the state known as edema is setting in, and in transudations of the capillaries from sudden vascular compression there is generally more or less coloring of the effused substance by an admixture of hemoglobin, which passed out after the red globules began to break.

This constitutes a deviation from normal function which will be considered more in detail when pathological stasis is taken up.

The only thing which is now intended to make clear in this connection is that, in any condition which interferes with the free circulation in the extremities, the capillaries are the first to show signs of stagnation, and are the last to move the corpuscles onward in the full re-establishment of the general circulation

(To Be Continued.)

CLINICAL REPORTS ON TRIONAL.*

BY DR. F. A. A. BOUDEAU, OF PARIS.

The following cases, observed by me in the service of Dr. Gaillard at the Hospital de Tenon, serve to illustrate the various uses of trional as a hypnotic and sedative.

1. INSOMNIA DUE TO PAINFUL AFFECTIONS.

Case I. Henri D., butcher, 40 years old, suppurating hydatid cyst,

* Thesis presented to the faculty of medicine of the University of Paris, 1895.

with very violent pain which at the time of his admission to the hospital supposed to be due to hepatic colic.

March, 23, 1895. Four hours sleep from a hypodermic injection of a modern dose of morphine.

March 24. Took one gm. of trional at 7 o'clock in the evening, and slept from half past 8 till 1 o'clock. One half an hour later fell into a sleep which lasted till 6 o'clock in the morning. The sleep was quiet without nightmare, and the patient awoke feeling well.

March 25. Did not take trional. Sleep lasted about three hours, restless and suffering a good deal of pain.

March 26. Took one gm. of trional at 7 o'clock. Slept from half past 7 until 5 in the morning, the sleep being sound, without nightmare. On waking, patient felt rested, and had no disagreeable sensations.

March 27, 28, 29 and 30. Continues to take one gm. of trional, and sleeps on an average eight hours.

April 1. Did not take trional. Suffering a good deal and could not sleep.

April 2. Took one gm. trional, and slept nine hours.

April 3. The patient was transferred to the surgical service.

Each time that the patient took one gm. of trional he slept from eight to nine hours on an average, and was more comfortable during the day time. On the contrary when he did not take it he suffered a good deal and was not able to sleep. No inconvenience was ever noted from the medication.

Case II. Fernand D., tinsmith, 17 years old, attack of lead colic, which prevented the patient from getting any sleep whatever.

March 25. One gm. trional at 7 o'clock. Slept from 9 till 11, and again from 2 till 4. The sleep was disturbed by nightmare. Pulse, 70.

March 26. One gm. trional at 7 o'clock. Fell asleep at 8 o'clock and woke at 4. The sleep was profound, but broken by nightmares. Lumbar pains on waking. Pulse, 95.

March 27. One gm. trional at 7 o'clock. Slept from 8 to 6. He woke once during the night, but went to

sleep again immediately. Pulse, 96.

March 28. Did not take any trional. Slept well for eight hours.

March 29. Did not take any trional. Slept for two hours restless.

In this case an average sleep of eight hours was obtained from trional, without causing any secondary disturbances.

Case III. Claire B., 40 years old, domestic attacks of mild hepatic colic which have prevented sleep for fifteen days. From time to time she was able to obtain a nap for half an hour or so, but was soon waked by the pain.

Bromide of potassium was given in doses of two grams for several days without effect.

One June 20 she took one gm. trional at 7 o'clock and slept from 9 o'clock until 5 in the morning, waking only once, and then going to sleep immediately. From that time she continued to take one gm. trional, obtaining an average sleep of seven hours.

No disturbances were noted, except that during the last few days there was a little diarrhea.

Case IV. N., 45 years old, suffering from a neuralgia of the diaphragm, which prevented her from sleeping more than one or two hours each night. For several days two grams of bromide of potassium was given without success.

On June 18, at 7 o'clock, she was given one gm. trional. She fell asleep at 10 o'clock and rested till 3 o'clock, when she woke and immediately fell asleep again until 5 o'clock. Some nightmare; on waking there was malaise, her head was heavy and she staggered a little, but these symptoms disappeared rapidly.

June 19. Took one gm. trional at 7 o'clock. Slept from half past 7 o'clock until 5 o'clock, rising once to pass water, but fell asleep again immediately.

On waking the same disturbances as the day previous, so that she was obliged to lie down again for a few minutes, but the symptoms soon disappeared.

The hypnotic action continued throughout the day, during which she slept pretty soundly. The pains

are less violent even during the day time than they were the day before yesterday.

June 20. Took one gm. trional at 7 o'clock. Slept from 9 o'clock until midnight, when she was waked by colicky pains, having taken on the previous morning a purgative which had up to this time failed to act. She subsequently slept from 3 to 5 o'clock. On waking, no further unpleasant symptoms.

Case V. N., suffering from lymphangitis of the arm, which caused a good deal of pain and prevented him from sleeping. Took one gm. of trional for two nights in succession and slept for nine hours the first night, and seven the second.

2. INSOMNIA IN CARDIAC DISEASES.

Case VI. Joseph M., metal-cutter, 69 years old, with aortic insufficiency and albuminuria, edema of the legs and edematous rales at the base of the lungs; sleep impossible on account of the marked dyspnea. Pulse, 110.

March 24. Took one gm. trional at 7 o'clock. Did not actually sleep, but there was a little drowsiness for two hours. The general condition remained bad, but was not aggravated. Pulse, 120.

March 25. Took the same dose with the same lack of result.

March 26. Did not take any trional. Slept soundly from a hypodermic injection of a moderate dose of morphine. Pulse, 92.

In this case trional was shown to be inferior to morphine. It had, however, no bad effect upon the heart.

Case VII. Yvonne M., day laborer, 54 years old, mitral insufficiency with enlarged liver; several attacks of jaundice; usually sleeps about five hours each night; restless and wakes two or three times to pass water.

Her first experience with trional was on the 5th and 6th of February, when she took one gm. each evening, sleeping about eight hours and twelve hours respectively. The sleep was profound and accompanied by nightmare.

March 17. Took one gm. trional at 8 o'clock. Up to 10 o'clock there was no special effect. At this time

her vision became disturbed, the head felt heavy and there was a ringing in the ear. At 10 o'clock the patient yielded to an irresistible drowsiness and slept until 4 o'clock. The sleep was heavy, but without nightmare.

On waking she had pain in the loins, headache, a little drowsiness, noises in the ears with pretty marked deafness, and a little uncertainty in walking.

March 18. Refuses to take trional on account of the disturbances just mentioned. The disturbances of vision, hearing and the headache gradually diminished, but did not disappear for several days.

Case VIII. N., 45 years old, mitral insufficiency. Has not slept for some time on account of the feeling of oppression. Took one gm. trional for five days in succession. Sleep came on after an average interval of two and one-half hours and lasted six hours. It was somewhat restless. No disturbance nor any bad effect upon the heart.

Case IX. N., 30 years old, mitral insufficiency, compensation well established. Does not sleep at all.

During eight days took one gm. trional each evening, and slept on an average two to four hours each night. The sleep was intermittent, but the patient was very much relieved by it. No disturbances and no injurious action upon the circulation.

3. INSOMNIA DUE TO FEBRILE AFFECTIONS.

Case X. Francois P., day laborer, 57 years old, left lobar pneumonia, with frequent cough and abundant expectoration. Sleep impossible. Pulse, 95.

March 24. Took one gm. trional at 7 o'clock. Fell asleep at 9 o'clock, and woke at 5 o'clock in the morning, feeling very tired. He was awake two or three times during the night, but only for a short period. He had a good deal of nightmare. Pulse, 90.

March 25. Took one gm. trional at 7 o'clock, and slept from half past 7 till 1 o'clock only. The sleep was disturbed by nightmare. General condition very bad. Pulse, 140.

March 26. The trional was stopped on account of the seriousness of his

condition. Pulse, 140, and thready. No sleep.

March 27. The patient died. In this case the trional gave an average of six to seven hours of sleep.

4. INSOMNIA DUE TO A NON-FEBRILE PULMONARY AFFECTION.

Case XI. Madeleine T., 64 years old, attack of pulmonary congestion without fever. Insomnia due to frequent coughing. The patient has only slept on an average five hours each night for the past week. No nightmare.

March 11. Took one gm. trional. After two hours had a continuous sleep of six hours, but it was broken by nightmare. Awoke feeling somewhat tired and with a tendency to drowsiness.

March 12. Sleep of the same character coming on one hour after the administration of the drug and lasting seven hours.

From March 13 to 17 did not take any trional, and slept on an average five hours each night.

March 17. Took one gm. trional at 7 o'clock. Slept from 9 o'clock till 5 o'clock in the morning, with nightmares. On waking the head was heavy, there was headache, nausea, no staggering.

March 18. Trional stopped. Slept soundly from 9 o'clock till 4, no nightmare; felt rested on waking.

March 19. Slept soundly from 8 o'clock till 4, without nightmare.

Case XII. Jean C., carriage cleaner, 43 years old, bacillary phthisis. His cough was so constant that he could only obtain one or two hours sleep each night, and it was disturbed by nightmare.

March 19. Took one gm. trional at 7 o'clock. Slept from 9 o'clock till midnight, and again from 1 till 4 o'clock. The sleep was interrupted by nightmare, and the patient awoke tired and with a tendency to sleep.

March 20. Took no trional, and was awake the entire night.

March 21. Took one gm. of trional at 7 o'clock. Slept continuously from 10 o'clock in the evening till 4 in the morning. Some nightmare; a little tired on waking.

March 22. Took one gm. of trional

at 7 o'clock. Slept soundly from 9 o'clock in the evening till 5 in the morning, followed by a little pain in the lumbar region.

March 23 and 24. The same result as on the previous day.

March 25. Left for Vincennes.

The average amount of sleep has been seven to eight hours. The only comment is that the restful effect was not as great as would have been obtained from a natural sleep of the same duration.

Case XIII. L. M., bronze-founder, 25 years old, pyo-pneumo-thorax; general condition very bad; night sweats. Complete insomnia, notwithstanding the administration of pills containing opium and hyoscyamus.

March 25. Took one gm. of trional at 7 o'clock. Slept from 8 o'clock until 2 in the morning. The sleep, which had been somewhat restless, was not resumed. Nevertheless the patient felt rested on waking.

March 26. Took one gm. trional at 7 o'clock. Slept from 7.30 until 4 o'clock. Sleep restless, and bad pain in the back on waking.

March 27. Trional stopped.

Case XIV. Leon L., jeweler, tuberculous. Remains in a drowsy condition throughout the entire night without actually sleeping. The cough is frequent.

March 12. Took one gm. trional. Half an hour afterward he fell into a good sleep, lasting eight hours, with two or three interruptions. No nightmare. Cough a little less frequent. Awoke rested and comfortable.

March 13. Took one gm. trional. Two hours later slept for six hours, but not continuously. Woke with nausea, headache; and then two hours later fell asleep for two hours, waking rested, the various disturbances having disappeared.

During the week following the same results were obtained, the action of the drug continuing for one night after its administration was stopped.

The average duration of sleep was eight hours.

Case XV. N., 25 years old, tuberculous, with pneumo-thorax very cachectic. Sleeps only about two

hours each night. Spends the rest of the time in coughing. Has taken chloral, sulfonal and opium without the least result. For about a month he took 50 centigrams of trional and fell into sleep on an average three hours later, the effect lasting about four hours. Although the sleep was disturbed the patient was somewhat rested by it. In this case the trional never caused any unpleasant symptoms.

Case XVI. N., emphysema. Sleeps only about one hour each night, coughing the rest of the time. Has taken opium without any advantage. For twenty days took one gm. trional, and on an average one and a half hours later experienced a quiet sleep, lasting four to five hours. Never any unpleasant symptoms.

Case XVII. Abel A., 19 years old, pasteboard-maker, suffering from pleurisy on the left side. Does not sleep more than one hour each night. During the remainder of the time he is so restless that he cannot remain in bed on account of the severity of the pain at one point in his side.

June 19. Took one gm. trional at 8 o'clock. Slept from half past 11 until 4 o'clock; the sleep being sound and quiet. On waking, felt rested, and had less headache than usual.

June 20. Took one gm. trional at 8 o'clock. Slept very well from midnight until 8 o'clock. No disagreeable symptoms on waking.

The same medication was continued for five days, the sleep lasting on an average seven hours, without any bad effects.

5. NERVOUS INSOMNIA.

Case XVIII. Louis V., sculptor, cerebral softening. Patient is very restless, and walks about the room in the middle of the night.

March 18. One gm. trional at 7 o'clock. Was quite as restless and sleepless as on the preceding nights.

March 19. Two gm. of trional at 7 o'clock. Slept from 10 o'clock till 4 in the morning, waking several times. He was less restless, although still somewhat talkative during his wakeful moments, but was quieter during the daytime.

March 20. Two gms. of trional at 7

o'clock. Slept from 9 o'clock till 5. He was a little more quiet than last night.

March 21. Two gms. trional at 7 o'clock. Slept from 9 o'clock till 6. The patient was very quiet and did not wake at all. He was much rested in the morning, and remained quiet during the entire day.

March 22. Took only one gm. of trional. Still very quiet.

March 23. Took one gm. trional. The patient was a little more restless than the previous evening, as well as during the following day.

March 24. Took the same dose. The restlessness increased, and the sleep was reduced to three or four hours.

The administration of trional was then stopped. In this case there were never any bad symptoms following the remedy, but it was manifest that the dose of one gramme was quite insufficient to give any result.

Case XIX. Marie G., burnisher, 21 years old, subject to attacks of minor hysteria, without loss of consciousness, coming on almost every morning and evening. She awakes almost every morning with a headache, which persists in a diminishing degree throughout the entire day. When there are no evening attacks she sleeps calmly for nine hours. After an evening attack she has a very restless sleep for seven to eight hours, which is interrupted by sudden startings. No nightmare.

March 16. She has had a slight attack at 4 o'clock, and is very excited. The taking of one gramme of trional at 8 o'clock was followed immediately by nausea. She slept continuously from half past 8 till 5 o'clock, was restless, but had no nightmare. On waking felt rested, with no tendency to drowsiness and no more headache than usual. During the following day there was none of the usual attacks.

March 17. No trional. Had six hours of quiet sleep. But four hours after waking had a slight attack, the only one during that day.

March 18. Took one gm. of trional at half past 7. Only slept about one hour, beginning at 2 o'clock, and awoke with lumbar pains. Neverthe-

less the day following was quiet and free from attacks.

March 19. Took one gm. trional at 7.30. Slept from 8 o'clock till 1. The sleep was light, the patient awaking at the least sound, but falling asleep again immediately. When she awoke at 1 o'clock, she was restless, felt compelled to walk about, and had a peculiar sensation of heat with urgent thirst. had a peculiar sensation of heat with urgent thirst.

Although the patient was tired, she was more quiet during the next day, and there were no attacks. The trional was then continued for six days with the same result. The average amount of sleep was about six hours, but it was somewhat disturbed and did not give very much rest; on the other hand, although the trional was given in small doses, it seemed to exercise a very favorable influence on the number of attacks.

Case XX. Louise H., day laborer, 43 years old, slight attack of rheumatism, neurasthenia. For the past three or four weeks she has only had at the most two hours of restless sleep each night.

March 18. One gm. trional at 8 o'clock. Slept well and quietly from 9 o'clock till 11, but not after that time.

March 19. One gm. trional at 8 o'clock. Slept lightly from half past 8 till midnight, and felt somewhat rested on waking. As the trional did not seem to give much result, its use was abandoned in this case.

Case XXI. Adelaide B., jeweler, 39 years old, chronic alcoholism in a neurasthenic subject. For a long time she has only slept three or four hours each night. Sometimes this sleep was continuous, and sometimes broken, but it was always restless and disturbed by nightmare. Has profuse perspiration. There is always a sensation of marked fatigue on waking.

March 5. Took one gm. trional. Three hours later slept for six hours. This sleep was sound without nightmare. On waking there was some nausea, and a little headache with some giddiness.

March 6. Took one gm. of trional.

Went to sleep four hours afterward and slept for two hours only. There was nightmare and nausea, and headache on waking.

March 6 to March 11. No trional given. There was a complete absence of sleep.

March 11. The patient took one gm. of trional, and three hours afterward had only two and half hours' sleep, interrupted by nightmare. There was profuse perspiration, nausea and headache.

March 12. Took one gm. of trional. Two hours afterward fell asleep for two and a half hours only. The sleep was broken by nightmare. There was a little perspiration, but no headache or nausea on waking.

March 13. Took the same dose. Four hours afterward slept for five hours, but she was restless and woke frequently.

March 14. The same dose. Three hours of restless sleep.

March 15. Took one and one-half gm. of trional at half past 8 o'clock. One half hour later there was a sensation of torpor and weakness, and at half past 9 an irresistible desire to sleep. She slept lightly until 10 o'clock, hearing every sound; and the same light sleep interrupted by nightmare was renewed from 11 o'clock until 3 in the morning. On waking there was lassitude and heaviness of the head lasting all the day.

March 16. Took one and one-half gms. at half past 8 o'clock. Began to sleep one hour afterward woke at 11 o'clock and immediately went to sleep again, waking finally at 3 o'clock in the morning.

March 17. Took one and one-half gms. at 8 o'clock. Slept well from 11 o'clock till 1. And immediately after fell asleep again until 4 o'clock. In waking there was fatigue, nausea and headache, the latter symptom, which was not a constant one before the administration of the drug, became so since then.

March 18. Two gms. of trional at half past 7. From half past 8 till 11 there was pretty intense headache, great weakness and profuse sweating. At 11 o'clock the tendency to sleep was irresistible, and she slept from that time until half past three,

but very lightly, hearing all that was going on about her.

March 19. Two gms. at 7 o'clock. Slept from half past 8 till 3 o'clock in the morning. The sleep was light and restless; she woke two or three times, but went to sleep again immediately. On waking, was very tired, but had no headache.

March 20. Took two gms, and had a broken sleep, lasting from quarter past 8 till 4 o'clock in the morning.

March 21. The trional was stopped. During the next two nights the patient slept for a few hours, and afterward relapsed to her former condition of insomnia.

In the case of this patient a dose of one gm. trional produced a sleep of three to four hours; with one and one half gms, an average of five hours; and with two gms. about seven hours.

The size of the dose did not seem to influence the rapidity of the action.

Case XXII. N., 56 years old, neurasthenia. Very restless, sleeps about one hour each night. A dose of two gms. chloral hydrate produces about three hours' sleep.

May 17. Took one gm. trional at half past 7 o'clock. Had a good quiet sleep from 8 o'clock till half past 1. Was not restless during the remainder of the night. Awoke quite rested.

May 18. One gm. at 8 o'clock. Slept well without nightmare, from 9 o'clock till half past 4. At half past 1 o'clock arose to pass urine, but fell asleep again immediately. From May 18 till May 28, continued to take one gm. trional, and fell asleep on an average three-quarters of an hour after the administration, the effect lasting about seven hours. The sleep was quiet, and the patient awoke feeling rested, having only a slight dull feeling in the head, and a tendency to sleep during the day time. With the chloral the condition on waking was more disagreeable; the patient continued in a condition of drowsiness and felt less rested.

Case XXIII. L. P., 10 years old, shop girl, major hysteria, with attacks about every other day. Sleeps only about two hours each night, is restless and has frequent nightmares.

In the day time she is very agitated and complains of violent palpitations. She has never taken any hypnotic.

June 19. On account of the extreme agitation of this patient, she was given two gms. trional at the outset—one gm. at 7 o'clock and another at 8 o'clock, in milk. She slept from 10.30 to 2 o'clock, then sat up on the edge of her bed and soon fell asleep again until 5.30, when she awoke quite rested, having only a slight dull sensation in the head. The sleep was very quiet for a period. The palpitations were less violent and there were no attacks of hysteria during the day. On the following days she received two gms. each evening, with the result of obtaining on an average eight hours of sleep, calmer condition during the day, and some diminution in the frequency of the crises. Nevertheless, as the condition of excitability was still quite marked, and as she could not receive the necessary attention in a general hospital, she was transferred to St. Anne, on June 27.

(To Be Continued.)

POST-PARTUM HEMORRHAGE.

Flooding after the application of the forceps must always be expected, since the instrument is usually employed because of uterine inertia—a source of hemorrhage. The danger comes when the placenta is expelled.—Tarnier.

Painful fissures of the nipples have for some time past been treated by the application of cocaine, either in the form of an ointment or a liniment. It has been found, however, that when thus employed the secretion of milk is diminished and the erection of the nipple prevented. These objections have led Dr. Joire, of Lille, to use cocaine with the direct object of checking the secretion of milk when necessary. He recommends a solution of one grain of cocaine in ten grammes of water and ten grammes of glycerine, and he advises that this should be used as a lotion to the nipple five or six times a day. He explains the arrest of secretion by the anesthesia of the nipple which results.

The Times and Register.

Weekly Journal of Medicine and Surgery.

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EDITORIAL PARTISANSHIP.

Under the title of "Medical Dogmatists" there appears in the Medical Times and Hospital Gazette an article by Dr. C. R. Illingsworth, of England, complaining of the treatment certain writers get in that country from the medical journals. While we cannot agree with the writer in all his opinions, nor do we believe that it is the general rule in America for our journals to favor prevailing fads in place of good,

sound articles on old remedies, there may be some cause for a complaint of partisanship or favoritism, even in our country, where freeness of thought and equality of views are supposed to be supreme.

Dr. Illingsworth's views are expressed in his article somewhat as follows:

"Medical editors are quite as capable of working mischief in a spirit of dogmatism as our medical authors. Alertly scanning with critical eye the medical horizon, nothing that pertains to the science of medicine ever escapes them, except perhaps some exceptional instances of foreign origin.

"The tuberculin and antitoxin crazes were of German and French origin. One has utterly failed, and the other is failing; firstly, because the toxin and antitoxin are complete myths, on the confession of their originators; secondly, because the results are distinctly unfavorable; and thirdly, because the cultivation and injection of animal extracts is entirely repellant to the medical mind of the day, savoring too much of the loathsome prescriptions of medicine men in earlier centuries.

"Had there been some commercial value attachable in the editorial eye to toxin and antitoxin—which, of course, is most impossible and incongruous—certain editors and certain journals could not exert themselves more vigorously to obstruct all adverse criticism against antitoxins, and to push on all communications bearing favorably upon them than they do. When advocates of previous treatments have written and spoken in glowing terms of the value of certain old remedies rehabilitated and changed from the insoluble to the soluble form, and of the rapid cures effected in specific fevers, their stock phrase was, and still is, "Ah! A mild type."

"A medical man of repute, for instance, wrote recently to one of the journals protesting against attacking germ products rather than the germs themselves which produced the same. Supporters of that gentleman, writing to the journal, received but scant notice from the editor. Why should

this be? Has the editorial staff of that particular medical journal become so tyrannical because it has some ulterior commercial purpose and prospects at stake; or is it that it is going through the farce of posing as the goddess Justitia?

Complaints as to unfair treatment are replied to that the staff is bound to make "a selection" out of the communications. This is all very well; but not when it comes to rejecting four out of five, as fit denizens of the great w. p. basket.

"Be it a single editor or an editorial staff, a correspondent finds himself frequently most abominably treated. A friend of mine once sent a communication about a cure of intussusception by aerial inflation per rectum. The paper was accepted; and with the acceptance was sent a request as to how many reprints would be wanted. My friend said "none." The paper was suppressed at once and never appeared! Such conduct as this on the part of an editor surely deserves condemnation. Is public good to be arbitrarily sacrificed like this? Surely not.

"But when it comes to editorial staffs, the case is even more pronouncedly bad. I myself had the temerity to call upon a certain staff to put a question, and this was how that question was received and answered. "Why, may I ask, do you not notice that I have experimented under license with the poison of anthrax on mice, and so far from failing to save life, as has been the case with all continental experimenters, I have saved nearly half the animals experimented upon? Now, inasmuch as anthrax is the most virulent poison of a bacillary nature to be met with, and on the principle that if a drug will kill bacteria more quickly than any other, this treatment will necessarily be successful in all germ disorders, rabies and diphtheria included." "Oh!" said the chairman, "you want us to advertise you then, do you?" "No"—indignantly—"I do not! I want you to advertise or publish the truth, and if I, by your so doing, get any credit, that is no business of yours. I bid you good day."

This episode implies that any German or other foreigner may write as much stuff and nonsense as he pleases, and it will be inserted in the front pages of our journals.

MODERN SPECIALTIES AND THE GENERAL PRACTITIONER.

No one who calmly scans the field of medicine to-day, and beholds the growing tendency to specializing, can resist the impression that whether for better or worse, the secure ground-work of the general practitioner is being slowly but surely swept from under him. Even the most successful of those whose practice is made up of promiscuous cases will tell us that without obstetrics a respectable living is scarcely possible. This is especially the case in large villages and cities, where transportation is cheap and dispensaries loom up in every direction. The office cases, that class which in the near past provided a moderate income, without the hardship and exposure incident in visiting in inclement and severe weather, have quite vanished. Why, indeed, pay, and those ambulance cases pay nothing at all, when professors, assistants and skilled specialists, with medicine included, can be had for nothing; or, at the most, five or ten cents?

The village practitioner, innocent enough, perhaps, sends a case to a city dispensary, in order that a consultant's fee may be obviated, and the patient will be all the better enabled to generously meet his bill when called for. But the city philanthropist, on the pretext of haste or something else, slips his card to the caller, to meet him at his office. Assuming that even some one of our palatial medical resorts is entered where cooling draughts and free lunches are provided, with every courtesy bestowed on the "interesting case," the consequences to the plodding practitioner are worse; for this person returns to her rural house and spreads far and wide the report of the wonders wrought and cures effected, without a cent's expense."

This is no mere visionary speculation, but an indisputable fact; for we have been informed of a vast medical institution, not far from us, that has not only reduced the profession of the city in which it is located to straitened circumstances but has spread its blight to neighboring States.

Now, what is the remedy for this unfortunate state of affairs? Remove the cause, some will say; but this is easier said than done. The specialists are strongly entrenched, and in order to ply their craft, must have material wherever it comes from. They have their friends among the politicians, and have a way of securing State support in the name of charity.

We can see now but two ways by which the rising generation can preserve themselves from extinction, under the new order of things. One is a more compact organization, with the full power of discipline and enforcing penalties; and the other is for physicians to qualify themselves as specialists and keep their patronage in their own hands. This is not impracticable, and, no doubt, in the next century we will find few in the field of medicine who have not specially qualified themselves for some branch of the healing art:

BACTERIOLOGICAL DIAGNOSIS.

There seems to be some unreliability in the reports of bacteriological diagnosis in the New York City Health Department. A correspondent of the "Medical Record" gives the following as his experience with that Board:

I had occasion to report two cases of diphtheria, November 5, and was excessively annoyed to find cultures had been taken from the two patients on November 7. Both were typical cases that there could be no shadow of doubt regarding diagnosis.

Imagine my amazement at receiving a report, "Laboratory No. 7705," saying "the case did not admit of an exact bacteriological diagnosis, as the inoculation was made at so late a period of the disease." The case was about 48 hours old, and the pharynx is now (three days after tak-

ing culture) covered with exudate. The other report, "Laboratory No. 7729," said: "Bacilli present, slightly resembling diphtheria bacilli, not sufficiently characteristic for positive identification; a prompt confirmatory culture is requested." This could not be furnished, as the infant died from exhaustion before receipt of request. This case was not 24 hours old when culture was taken. Both cases were very severe in local and constitutional symptoms, and typical cases of diphtheria.

The question occurring to me, and which must suggest itself to all general practitioners, is this: If we cannot get a correct and definite report in a typical case, how can we rely on the report in a doubtful case? I have frequently had reports on cultures from the Health Department Laboratory where the clinical symptoms did not bear out the bacteriological report, but this is the first time it has been clearly demonstrated to me that the report is a lame reed to lean on, and for this reason I still further emphasize my objection to strange doctors taking cultures from every case as a routine procedure. I may say that in conversation I have heard several medical neighbors make the same complaint of interference and unreliability of report.

Book Reviews.

HOW TO DISINFECT. A guide of practical disinfection in every day life, and during cases of infectious illness. By C. T. Kingzett, F. I. C., F. C. S. Published by the American and Continental "Sanitas" Company, Limited., West 55th street, New York and London. Price 10 cents.

This work on disinfection is a good practical treatise on the subject and most intelligently handled. It treats of safe and efficient methods that do not rob the air of its essential oxygen or overpower noxious gases by worse odors of a disinfectant. The employment of sanitas preparations has long been known and tested. They are also, as we know, extremely effi-

cient against all forms of bacteria and micro organisms, yet not dangerous to life. They are powerful purifiers and non-corrosive. We advise all our readers to procure a copy of this work.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

A NEW TREATMENT FOR SIMPLE OR COMPLICATED FRACTURES OF THE FINGERS AND TOES.

The Presse medicale for November 2 publishes a description of a new apparatus, which was invented by M. Schmidt, for the purpose of practicing extension, using the nail of the fractured finger as a means of support.

The apparatus itself is composed of a small board made more or less in the form of the palm of the hand or of the sole of the foot. Near the edge of the board, which should rest against the root of the digits, is an extension on which the fractured finger or toe is placed. On the end of this extension is a hook. In applying this apparatus there must be ready for use a gimlet, strong silk or ordinary thread, a needle, and a rubber tube. The procedure is as follows: At some distance from the free edge of the nail two holes are bored with the gimlet at equal distances on each side of the median line of the thumb. Then with a needle the two ends of thread are passed through the holes (the needle must pass from the palmar surface to the dorsal surface of the nail), and after this is done the board, covered with a layer of cotton, is slipped under the hand and placed in such a manner that the healthy fingers may clasp the free edge, and the fractured finger is placed on the extension. The opposite edge of the board is then attached to the band by means of small bands of adhesive plaster passing around the wrist. A band of tarlatan wrapped around the board and the hand, but leaving the fingers free, holds the apparatus in place. On the hook at the end of the

board the rubber tube is placed, the two ends of which are strongly tied, and, in drawing on the loop in the direction of the finger, the two ends of the thread, which pass through the holes in the nail, are attached to the rubber tube. At this moment the fracture is reduced and the fragments are held in place owing to the extension and to the counter-extension accomplished by the thread and the rubber tube. During the first three days the traction should not be strong, in order not to strain the nail too much; but from the fourth day traction should be increased by tightening the thread. The apparatus is left in place from two to three weeks.

According to M. Schmidt, his apparatus presents considerable advantages, such as free circulation in the fingers; the fragments do not rub against each other; and the seat of the fracture being exposed, the physician can easily watch the position of the fragments. Massage may easily be applied, also the necessary dressings in case of complicated fractures, etc. Furthermore, in cases of articular fracture the extension prevents ankylosis or articular rigidity.

In twenty-five cases in which this treatment has been employed, says the writer, onychia has never been observed. Sometimes a softening of the root of the nail supervenes, which disappears, however, as soon as the apparatus is removed. In two cases only this softening lasted until the nail fell out, pushed by the new one which had formed underneath it.—N. Y. Medical Journal.

A discussion on "General Constitutional Treatment in Diseases of the Ear" was opened by Dr. Gelle, Paris.

He pointed out that often the most important information the auris could give was that the ear was quite normal, and that the physician must look elsewhere for the cause of constitutional disturbances, though in many instances he could trace them to disease of that organ. Of the acute forms of aural disease, he referred first to those occurring in the course of the eruptive or other fevers, recommending careful nasopharyngeal treatment as the best means for

their prevention, and in particular Guye's method of nasal irrigation, the soda-water syphon douche, and, if necessary, the removal of tonsils. Deaf-mutism, he thought, might be at times prevented by prophylactic specific treatment of the mother during gestation, and by attention to the auditory organs in the infant. He alluded to the influence of intestinal antiseptics practiced by means of calomel, naphthol, salol and other means in preventing the multiplication of pathogenic microbes, and the occurrence of septic infection, and directed attention also to the hygiene of the mouth. In acute otitis in general he administered sulphate of quinine, but when it arose from influenza he preferred antipyrin, and in gouty otitis the well-tried anti-arthritis remedies. He had hopes of advantage accruing from the application of serum therapeutics in infective diseases of the organs of hearing. In chronic otorrhea he advocated more frequent recourse to antisyphilitic treatment, and attached great importance to general treatment in gouty, diabetic and tubercular subjects, believing in a future for serum treatment in the last. The removal of causes of weakness, such as prolonged suckling, was of urgent importance. The early administration of pilocarpin in sudden deafness was strongly advocated. Hypnotism, though occasionally of value in slight cases of functional deafness, had never proved of value in severe ones, and electricity was of value in a small sphere.

There was no further discussion on Dr. Gelle's exhaustive paper.

Dr. Yersand Arslan, Padua. On adenoid vegetations.

Dr. Arslan attached great importance to the diagnostic value of posterior rhinoscopy. In operating he employed the curette and the finger-nail, and invariably during anesthesia by bromide of ethyl.

The discussion was continued by Drs. Corradi, Goris, Gradenigo, Pritchard, Baber and others.

Dr. Helme protested against the employment of the finger-nail as liable to convey septic organisms.

Dr. Moure held that the finger could be sterilized for this operation

as well as for any other serious surgical proceeding such as a laparotomy.

Dr. Dundas Grant operated under nitrous oxide on account of its safety, and in order to attain the necessary degree of rapidity he was accustomed to commence by scraping with his finger-nail, sterilized by means of lysal and then alcohol, so as to judge at the same time of the extent, nature and situation of the growths, and select the instrument suitable for concluding the operation, Gottstein's or Delstanche's curette when the back of the pharynx was the site of the growths, and Schech's or Quinlan's forceps in case of the vault being mainly involved.—*The Journal of Laryngology*, Nov., '95.

INTRODUCTION TO THE DISCUSSION ON THE TREATMENT OF INTRA-CRANIAL ABSCESSES FOLLOWING PURULENT DISEASE OF THE MIDDLE EAR.

By Dr. Thomas Barr, Glasgow.

We are able to reach and deal successfully with the following conditions:

1. Abscess in the cerebrum, especially in the temporo-sphenoidal lobe.
2. Abscess in the cerebellum.
3. Purulent formations at the base of the skull, either (a) between the bone and the dura mater (the so-called extra-dural abscess), or (b) between the dura mater and the surface of the brain (the sub-dural abscess).

4. Infective thrombosis of the sigmoid sinus even when secondary foci may exist elsewhere.

Preliminary opening of the middle ear. In many of these conditions we are able to reach the abscess most conveniently from the cavities of the middle ear; in others we can deal with it more satisfactorily through a trephine opening in the lateral wall of the skull, above or behind the middle ear.

In all of these conditions it is essential, as a preliminary operation, to explore the cavities of the middle ear by removing the outer wall of the antrum. With the cavities of the middle ear thus opened, we ought to scrutinize with a good light and a reflect-

ing mirror the bony partition which separates the tympanum and antrum at their roof from the dura mater, as well as (and this is perhaps more important still) the bony partition of the sigmoid groove. The existence of a carious aperture of an exposed dura mater or sigmoid sinus or of granulation tissue sprouting from these, will regulate our further procedure. The partitions of the roof and sigmoid groove, separating the middle ear from the temporo-sphenoidal lobe above, and from the sigmoid sinus behind, are without doubt the two great pathways by which the infective matter effects its fatal entrance to the interior of the cranium. Fortunately, they are both accessible, and readily accessible, from the middle ear spaces, and by the preliminary and essential operation of opening these spaces we are able to remove the pus, the cholesteatomatous matter, the granulation tissue, the carionecrotic debris, and the pathogenic organisms from the antrum and attic, these primary and dangerous formations (the "dynamite" of Prof. Macewan) which bring the patient's life into peril.

Extra-dural abscess. Having broken down the cranial partitions, we shall find, in a certain proportion of cases, pus between the dura mater and bone, the extra-dural abscess, in one or other of the vulnerable situations. Above the tegmen antri, or tegmen tympani, pus is often found extradurally, the removal of which, without going deeper, brings about the disappearance of grave symptoms. Such extra-dural formations may be the precursors of temporo-sphenoidal abscess, just as similar formations at the sigmoid groove often lead to septic thrombosis of the lateral sinus, general septicemia, or cerebellar abscess. Operations for the removal of extra-dural abscess have been singularly successful, and during the last seven years thirty-nine cases have been reported of extra-dural abscess, either at the tegmen or at the sigmoid groove, operated upon and followed by recovery.

Septic thrombosis of sigmoid sinus. Extra-dural abscess in the situation of the sigmoid groove is generally as-

sociated with septic thrombosis in the sigmoid sinus—hence in all such cases the sinus should be carefully examined. If it is found to be occupied, as it generally will, be by a thrombus, and if symptoms exist pointing to disintegration of the clot and general septic infection, the blood current, if still flowing through the sinus, should be stopped in order to prevent further systemic infection. This is achieved either by ligature of the jugular vein in the neck, as first proposed by Victor Horsley, or, as advocated by Macewan, slitting up the freely exposed sinus, removing the septic thrombus, stuffing with iodoform gauze, and by pressure bringing the outer wall of the sinus into contact with the inner, thus obliterating the venous tube. If there is reason to believe that the sinus is quite occluded, and the circulation entirely checked, the simple application of antiseptics and pressure may suffice. In the hands of Victor Horsley, Arbuthnot, Lane, Ballance and others, the operation of ligaturing the jugular vein in two places and cutting between has proved very satisfactory, and there are now thirty-six recorded cases of successful operations, where septic thrombosis and general infection existed.—*Journal of Laryngology*, Nov. 1, 1895.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

ARSENIC.

"Arsenic, Its Influence on Nutrition," is the title of a thesis by Vorratello. It is an experimental study of the action of the drug as a tonic and constructive agent.

Arsenic, in doses of 12 to 14 mg. per day, aids elimination of uric, phosphoric acid and chloride of sodium. These doses showed also an increase in general nutrition; with larger doses there was a lessening in the nutritive processes, followed by emaciation. Levy reached similar conclusions. He used the drug in some stomach affections—he found that it

removed pain, increased the appetite and digestion. For arsenic to be well borne, it should be administered about one-half hour after meals, as then the production of hydrochloric acid is occurring in the stomach. He concludes that arsenic acts as a stimulant to general nutrition, increasing bodily weight, strength and endurance.—*France Med.*

PULMONARY EMBOLUS WITH RARE COMPLICATIONS.

Fernet communicates an observation of a person 20 years of age suffering from cardiac disease and albuminuria, in whom a pulmonary embolus was followed by numerous and rare complications, to wit: A pleural effusion on right side, sero-sanguinous—amicrobic; twelve days later pneumothorax on the same; as a consequence of the pneumothorax a double purulent pleurisy, the pus of which contained many pneumococci and some streptococci. All these lesions were verified at the autopsy. Gailard remarked that it is excessively rare to see a pulmonary embolus determine a pneumothorax as a consequence.—*La France Med.*

The treatment of ulcerations or granular sores by lactic acid, pure or in various dilutions, has been found very successful.—*Lecocq.*

ICHTHYOL IN ERYSIPELAS.

"Ichthyol in Erysipelas" is the subject of an article by Vychsoisky, in the *Bull. de Therap. and Med. Generale*. He used it in cases of the disease on the face and scalp, and cured all his cases (12). He employed an ointment, applying it to the skin twice a day, in a thick layer. The proportion was one part ichthyol to eight parts of any simple ointment. If this did not lower the temperature rapidly, he increased the strength. The addition of camphor seemed to increase the action and cover the odor.

RIGHT-SIDED EDEMA IN HEPATIC DISEASE.

Hano reports two cases of this affection—one in a case of hypertrophic cirrhosis and one in a case of cancer. It was thought at first due to the decubitus, which was for a long time on the right, but having observed two fresh cases he found that this was not the cause, but thinks there is a connection between the edema and the liver disease.—*La France Med.*

THE ACIDS AS STIMULANTS TO THE PANCREATIC SECRETION.

The researches of Dolnisky, based on those of Becker, which show that the ingestion of a solution of carbonic acid has a stimulating effect on the pancreas, provoking an abundant flow of the secretion. The experiments were carried out on dogs, in whom a pancreatic fistula had been created. The animals were fed on bread and milk. When the flow of the secretion became nearly constant, 250 cc. of acid solution, mixed with the food or drink and heated to 17 or 18 degrees C., were injected.

Hydrochloric acid was tried first. This produced an extremely abundant flow. A solution ten times weaker than the normal acid of the stomach was sufficient. Phosphoric, acetic, lactic acids all produce the same effects, but in a less degree. Alkaline substances or solutions produce no increase in the flow.—*Courrier Med.*

DYSPHAGIA IN TYPHOID FEVER.

According to this writer, dysphagia is a frequent accident in the course of typhoid fever, but more so in some epidemics than in others. Lewis noted some cases. The disorder may be seen in three varieties—the first comprising cases mechanically produced by the condition of the tongue, pharynx, etc. The second takes in those cases in which it is due to a reflex action; due to some lesion of the parts, varying from congestion to ulceration, abscess or gangrene. The third variety results from disorder of the nervous system, which

may arise from lesions of the upper part of the spinal cord, generally coming on late in the disease, and usually fatal; or again, it may result from purely spasmodic conditions allied to hysteria, the character of which it is somewhat difficult to distinguish from the more serious form. The period in the disease in which it occurs, absence of bulbar phenomena (particularly relative to the respiration circulation, etc.), are the distinguishing features. In some exceptional cases dysphagia has been the forerunner of grave nervous disorders.

Treatment has not given satisfactory results.—*Courier Med.*

BACTERIOLOGY OF PHLEBITIS DURING TYPHOID FEVER.

Vincent, of Algiers, observed 28 cases of phlebitis in 340 cases of typhoid; that is a proportion of 8.23 per cent. In each case there was demonstrated in the thrombotic vessels, and clots, the existence of the white and yellow staphylococcus. The author produced experimental phlebitis in an inoculated rabbit whose femoral vein had been artificially contused. These microbes have also been found during the febrile period at the beginning of the disease, in the blood. The staphylococcus appears to be the principal agent in this complication of typhoid fever, as it has been found alone in cases of this disease. Contrarily to what is observed in other diseases, such as tuberculosis, puerperal fever, etc., typhoid phlebitis is not a manifestation of the specific germ—it is caused by a superadded germ. In all Vincent's observations this germ was the staphylococcus pyogenes (aureus).—*Courier Medical.*

THE LINGUAL TRACTION METHOD OF ARTIFICIAL RESPIRATION.

(*Therapeutical Gazette*, August 15, 1895.) By A. E. Russel, M. D.

This author has used successfully the Laborde treatment for resuscitation of the new-born in two cases where the ordinary methods of artificial respiration were without the

slightest apparent effect. After the fifth or sixth traction emesis was provoked and followed by shallow respiration.

The mechanism of this operation the stimulation produced by the traction of the tongue on the sensory nerves and the reflex action on the principal motor nerves distributed to the muscles of respiration. The return of the contractions of the diaphragm is the first result produced by these lingual tractions, feeble movements at first in the epigastric region, afterwards extending upward to the thoracic region, and, last of all, the action of the muscles of the face, nose, etc.

Over fifty cases in which this method has been used for the treatment of asphyxia in the new-born have been reported from different parts of Europe. The president (M. Rochard) of the Academy of Medicine of Paris, in his report of work done in the year 1894, says, "He (Dr. Laborde) has received from all parts evidence which confirms his statements, and this year he has had the extreme satisfaction to note that colleagues up to the present time incredulous or indifferent publicly admit before the society the excellence of this method after having seen it succeed in almost desperate cases. This justice has been rendered him by Drs. Lancereaux, Verneuil, Labbe and Perier. At the present time the lingual traction method may be considered as classic in all the cases of apparent death."

BLEEDING HEMORRHOIDS.

Order complete rest in horizontal position; bathe region with cold boracic lotion. If pain is acute, apply an ointment of vaseline in each ounce of which are two grains of muriate cocaine, five grains extract belladonna, and seven and a half grains extract krameria. If hemorrhage is severe, apply a solution of iron perchloride on cotton wool. Reduce hemorrhoids with sponge soaked in cold water. In the evening introduce a suppository containing one-fifth grain of extract belladonna, one-half grain of extract opium, fifteen

grains of extract krameria, and sixty grains of cacao butter. If hemorrhoids continue to cause annoyance, surgical interference either by forced dilatation of the sphincter or by extirpation will be necessary.—Practitioner (London).

TRANSLATIONS FROM

Foreign Exchanges.

By Drs. CHANDLER AND DAVIDOW.

SPLENECTOMY FOR ECHINOCOCCUS CYST OF THE SPLEEN.

By E. Hahn.

From the City General Hospital at Friedrichshain in Berlin—*Deutsche Med. Wochenschrift*, 1895. No. 28.

H. describes a case which occurred in a woman 35 years old. At the time of entrance to the hospital an easily movable tumor the size of a child's head, and with a smooth surface, had developed in the left side of her abdomen. The descending colon on inflation seemed to cover the tumor.

The operation was done through a median incision, extending half way above and below the umbilicus. When the tumor was brought out through the incision, it proved to be a degenerated cystic spleen. The pedicle was tied in several places with fine silk, cut off and then dropped back into the abdominal cavity. Interrupted catgut suture of the peritoneum; muscular layer and skin sutured with interrupted silk. The weight of the tumor was 850 gms.

Examination of blood at time of operation gave a proportion of white to red corpuscles of 1:160. This condition improved rapidly, however. Recovery, excepting interruption by an attack of pleurisy, was normal.

H. quotes the different statistics, which gave a mortality of 27 per cent., according to Tinkler, for operation in echinococcus cyst of the spleen, since the days of antisepsis.

So far as splenectomy is concerned, there were four cases operated upon for blood cysts, and all recovered; of the seven extirpations of the

spleen for echinococcus cysts, two were unsuccessful. Death occurred in the cases of Koberle and Durante; the successful cases were those of Bergman, Maas, Novano, Snegirjeff, Hahn.

The unsuccessful cases were noteworthy for the very extensive adhesions between the stomach, intestines and diaphragm.

H. proposes in such cases to sew the cyst wall to the abdominal wall and open the cyst then or at a later operation; he is not in favor of puncture with or without aspirating, and the injection of a fluid into the sack, neither does he advocate the attempt to remove the cyst and leave behind the spleen.

H. chose splenectomy in his case in preference to a primary or secondary incision, which offers still better results (only two deaths in 15 cases); because the cyst wall was very thin and was situated on the concave side of the spleen, and for the additional reason that a twist could easily occur on account of the length of the pedicle.

W. F. G.

TWO CASES OF LATE SUTURE OF THE RADIAL NERVE AFTER STRETCHING OF THE SAME.

By F. Herzog.

Wiener Med. Wochenschrift, 1895. No. 4.

In both cases there were injuries in the upper arm caused by sabre cuts in officers' duels, by which injuries the soft parts on the flexor side were cut down to the bone. Typical radial paralysis and absolute uselessness of the arm followed the injury. Examination of the severed nerve 2-3 months after the injury showed a separation of 2.2-1.2 cm. After freeing and stretching the proximal end of the radial nerve, the proximal and distal ends of the severed nerve were refreshed and reunited. Primary union. Early electrical treatment, local baths and massage restored, after some months, the usefulness of the arm.

W. F. G.

TREATMENT OF PERFORATION OF GASTRIC ULCER INTO THE ABDOMINAL CAV- ITY.

By Pariser.

Deutsche Med. Wochenschrift, 1895.
Nos. 28, 29.

Pariser, in order to decide the question whether, after establishing the diagnosis of a gastric tumor perforating into the abdominal cavity, one should treat it expectively, or by a laparotomy with the closure of the hole in the stomach, collected some statistics of the cases, which had been previously published, and of some later ones which has not been published.

He obtained a much better result than that found in the older statistics, so that out of 43 operated cases, 10 recovered; under expectant and purely internal treatment death was almost sure to follow. Data of time of operative interference existed in eight out of eleven cases, and showed that the operation was performed between 3-16 hours after perforation. The earlier the operation, the better the prognosis, although death occurred in some of the early operations.

The position of the tumor and size of the perforation influenced the prognosis. It sometimes happened that a second perforation was overlooked at the time of the operation.

Among 30 cases the tumor was situated twice on the small curvature, six times on the posterior wall, and 22 times on the anterior wall. Much more frequent at cardiac than at pyloric. Out of 29 cases 25 were women, 4 men.

The expectant treatment of perforation into the abdominal cavity has been successful only in those cases where the stomach was completely empty. Pariser mentions the case of a woman 31 years old, where this condition was present at the time of the perforation. She recovered without operation, in spite of very threatening symptoms, by complete abstinence of food by the mouth.

It is only when one is sure that

the stomach is empty and can be kept so that one can refrain from operating. Otherwise operate in every case.
W. F. G.

ON THE THEORY OF CONGEN- ITAL DISLOCATION OF THE PATELLA.

By K. Appel.

From the Surgical Clinic of the University at Halle.—Munchener Med. Wochenschrift, 1895. No. 25.

Two cases of congenital dislocation of the patella, which came under observation at the Halle clinic (one of which was a man 26 years old, and the other a woman of 40 years) showed such a deformity of the external condyle of the femur and the corresponding half of the trochlea, that while the external border of the trochlea had its normal contour, the condyle, as a whole, seemed flattened and roof shaped on its outer surface. As a result, that portion of the trochlea belonging to the external condyle was diminished in size, and the trochlea itself was partially leveled off in its upper part.

In the literature on the subject of congenital dislocation of the patella Appel found 13 cases with this deformity of the condyle mentioned more or less distinctly. In only three cases was the external condyle found normal, and in the other cases no mention was made of the anatomical relation.

Even if Appel grants that the dislocation might occur through an intra-uterine injury to the inner border of the patella, still the above-mentioned discoveries would lead him to the hypothesis that in the majority of cases the cause of its origin is in the changes of the external condyle of the femur, a result due to a congenital defect in development or to rachitis.

With such a deformity, a slight blow is sufficient to lead to a dislocation, such as occurred in the case of Appel's patient.

W. F. G.

Miscellany.

MY STARS.

O Star of Faith, desert me not;
At times when heaven may seem to
fail,
And earthly lights before me pale,
Then steadfast shine upon my lot.

O Star of Hope, that most in days
Of childhood shinest clear and bright,
Shed on me still thy cheerful light,
Illumine my pathway with thy rays.

And last, not least, O Star of Love,
Cheer and sustain my lonely heart,
Make sweet for me life's bitter part
And lift my soul, its ills above.

Ye triple stars, Faith, Hope and Love,
That on me shine from realms more
bright,

Ye are but almoners of light
Effulgent from the God above.

Faith, Hope and Love in triune bond
Shine on, shine on within my soul;
Shut out the darkness world's control
And lead to perfect light beyond.

—Thomas Wistar, M. D.

Dr. H. W. Cox, the well-known neurologist, from Portland, Ore., has lately make quite an extended visit to New York, in pursuit of fresh knowledge in his chosen specialty. The doctor has been the guest of several of the most distinguished neurologists and practitioners while in the city, and returned recently to his home on the Pacific coast with the best wishes of a host of friends that he leaves behind him in the East.

PURULENT OPHTHALMIA.

R.—Hydrastis sulphatis,
Acidi borici,
Sodii bichloridi.....of each 5 gr.
Tr. opii deodor..... $\frac{1}{2}$ dr.
Aque dest1 oz.
To be used as a collyrium from the
beginning.—Scott.

LESIONS THAT MAY SIMULATE CHANCRE.

A. Artificial indurations caused by irritants applied to simple lesions. B. Nodular lymphangites, as occur in gonorrhea. C. Scabies, where penile lesions are the rule. D. Secondary indurations at the site of the initial lesion (Fournier's pseudo-chancre). E.

Secondary syphilitic papules or tubercles situated upon the genitals. F. Ulcerative gummata of the genitals. G. Epitheliomata of the genitals.—N. Y. Med. Record.

GONORRHEA.

R.—Perchloride of mercury....1 part
Antipyrin100 parts
Distilled water10,000 parts

The injection should be used four times a day and retained as long as possible. The addition of antipyrin prevents smarting.—Vatier.

CHORDEE.

R.—Ex. opii.....1 gr.
Camphoræ10 gr.
Ol. theobrom.....q. s.
M. et ft.—Suppository No. 1.
Sig.—Use at bedtime.

—Ricord.

GONORRHEA, SECOND STAGE.

R.—Hydrarg. chlor. corros....1-6 gr.
Acidi carbolici..... $\frac{1}{4}$ dr.
Zinci sulpho-carbolate ...24 gr.
Boro-glyceride (50 per cent.sol.)2 oz.
Aqua rosa.....q. s. a. d. 8 oz.
M. Sig.—Use as injection after urinating.—White.

INCONTINENCE OF URINE.

R.—Tincturæ belladonnæ,
Tincturæ cubebæeach 2 fl. dr.
Tincturæ nucis vomicæ,
Tincturæ rhei aromaticæ...ea. 1 fl. dr.
Tincturæ cascariillæ2 fl. dr.
Twelve drops at bedtime for a child
from 7 to 10 years.

CONJUNCTIVITIS.

R.—Acidi borici20 gr.
Sodii chloridi8 gr.
Aque destillat2 fl. oz.
M. Sig.—Use freely as a lotion every
four hours, first warming.

HERPES ZOSTER.

R.—Boric acid1 gr.
Glycerine, q. s., vaseline.....30 gr.
Cocaine hydrochlorate
Extract of opium.....each 30 ctgr.
M.—The neuralgia following the eruption
is best treated by Fowler's solution.
—KAPOSI, Med. Record.

CONSTIPATION OF INFANTS.

R.—Sodii bicarb1 dr.
Tr. nucis vomica.....6 drops.
Tr. card comp.....2 fl. dr.
Syr. simp.....2 fl. dr.
Aq. chloroform..... $\frac{1}{2}$ fl. oz.
Aque2 fl. oz.
M. Sig.—Teaspoonful every six hours.—
E. Smith.